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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/644,390 | 08/22/2000 | Reinhold Berberich | 4326 US | 1781 |

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03/16/2005

Martin A. Farber
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EXAMINER

PARTHASARATHY, PRAMILA

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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2136

DATE MAILED: 03/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/644,390

Applicant(s)

BERBERICH, REINHOLD

Examiner

Pramila Parthasarathy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is in response to the communication filed on January 19, 2005.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/06/2002, has been entered.

3. Claims 1 – 8 are now pending.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
5. The following title is suggested: Security Device for Guarding Motor Vehicle.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 – 4, 7 and 8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Dixon et al. (U.S. Patent Number 5,291,516).

7. Regarding Claim 1, Dixon teaches and describes

a control unit having means for transmitting a first coded electromagnetic signal (stimulus signal); a portable transmitter (radio key), having means for receiving the stimulus signal, and means for transmitting a second coded electromagnetic signal (enable signal) on a carrier frequency (Column 2 lines 9 – 18 and Column 4 lines 57 – 64); and

wherein the control unit has a receiver tuned to the carrier frequency and is connected to the security device and actuates the latter if the enable signal is received by the receiver and is recognized, wherein the control unit and the radio key have means respectively for tuning said receiver to said carrier frequency and for altering said carrier frequency of the coded electromagnetic signals (Column 2 lines 48 – 58 and Column 5 lines 50 – 59); and

wherein the radio key alters said frequency and the control unit correspondingly tunes said receiver during signal transmission in a manner known only to the control unit and to the radio key (Column 5 lines 21 – 25 and 58 – 61).

8. Claim 2 is rejected as applied above in rejecting claim 1. Furthermore, Dixon discloses the radio key has a narrowband transmitter, transmission frequency of which is controllable and wherein the radio key alters its transmission frequency over intervals of time when transmitting signals (Column 6 lines 5 – 8 and 48 – 53).

9. Claim 4 is rejected as applied above in rejecting claim 1. Furthermore, Dixon discloses the carrier frequency is to be changed is contained in the stimulus signal (1) as coded information item for transmission to the radio key (Column 5 lines 21 – 25).

10. Claim 7 is rejected as applied above in rejecting claim 1. Furthermore, Dixon discloses the signal transmission takes place over a spectrum of different carrier frequencies and wherein the enable signal contains a coded information item for modulating said spectrum (Column 2 lines 48 – 54 and Column 5 lines 21 – 25).

11. Claim 3 is rejected as applied above in rejecting claim 2. Furthermore, Dixon discloses a device for actuating a security device, preferably for securing a motor vehicle against unauthorized use, wherein the tunable receiver of said control unit is a

tunable narrowband receiver having the same frequency range as the transmitter in the radio key (Column 5 lines 58 – 65 and Column 6 lines 5 – 11).

12. Claim 8 is rejected as applied above in rejecting claim 7. Furthermore, Dixon discloses the transmission via different carrier frequencies constitutes frequency hopping (Column 2 lines 18 – 24).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon et al. (U.S. Patent Number 5,291,516, hereafter "Dixon") in view of Siedentop et al. (U.S. Patent Number 6,329,909, hereafter "Siedentop").

14. Claim 5 is rejected as applied above in rejecting claim 4. Furthermore, Dixon discloses the stimulus signal (1) (Column 2 lines 9 – 18 and Column 4 lines 57 – 64). Dixon does not explicitly disclose that the stimulus signal (1) contains a random number and the carrier frequencies are determined by applying a cryptoalgorithm (3) to said

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stimulus signal (1) and, in this context, particularly to the random number contained in the stimulus signal (1). However, Siedentop discloses a transceiver where the stimulus signal (1) contains a random number (key) and the carrier frequencies are determined by applying a cryptoalgorithm (3) to said stimulus signal (1) (received data) and, in this context, particularly to the random number contained in the stimulus signal (1) (Column 7 line 58 – Column 8 line 3). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dixon's method of the stimulus signal contained as a coded information to contain a random number and the carrier frequencies are determined by applying a cryptoalgorithm as taught by Siedentop.

15. Motivation to combine the invention of Siedentop with Dixon comes from the need for denying unauthorized party to access a protected system as the random number and the stimulus signal are contained in transmitted code which is used in the cryptographic algorithm to generate a code for activating a vehicle (See Siedentop Column 7 line 55 – Column 8 line 24). Dixon could have been modified by Siedentop to arrive at the claimed invention by having the random number (key) contained with a stimulus signal to logically applying cryptoalgorithm to send it as a coded information (see Dixon Column 3 lines 24 – 64). One of ordinary skill in the art would have been motivated to modify Dixon by Siedentop as discussed above to achieve a security device, which can transmit and receive coded information for providing secure

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accessing as taught by Siedentop and to select the carrier frequency at the receiver and transmitter as taught by Dixen.

16. Claim 6 is rejected as applied above in rejecting claim 4. Furthermore, Dixon discloses selection of the carrier frequency at the receiver and transmitter ends is determined, using a coded information item in the stimulus signal in the radio key and in the control unit independently of one another (Column 2 lines 8 – 68). Dixon does not disclose that selection of the carrier frequency at the receiver and transmitter ends is determined, using a coded information item in the stimulus, by means of a cryptographic method in the radio key and in the control unit independently of one another. However, Dykema discloses selection of the frequency at the receiver and transmitter ends is determined, using a coded information item in the stimulus signal in the radio key and in the control unit independently of one another (Column 6 lines 17 – 31 and Column 10 lines 50 – 59). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Dixon's method of the stimulus signal contained as a coded information to determined selection of the carrier frequency at the receiver by applying a cryptoalgorithm as taught by Siedentop.

17. Motivation to combine the invention of Siedentop with Dixon comes from the need for denying unauthorized party to access a protected system where by means of a cryptographic method in the radio key and in the control unit independently determining the carrier frequency (See Siedentop Column 5 line 61 – Column 6 line 44). Dixen could

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have been modified by Siedentop to arrive at the claimed invention by having the coded information logically used by a cryptographic method to determine the carrier frequency (see Dixen Column 3 lines 24 – 64). One of ordinary skill in the art would have been motivated to modify Dixen by Siedentop as discussed above to achieve a security device, which can transmit and receive coded information for providing secure accessing as taught by Siedentop and to select the carrier frequency at the receiver and transmitter as taught by Dixen.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on Tuesday – Thursday 8:00a.m. To 3:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-232-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy

March 7, 2005.


AYAZ SHEIKH
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